DCoE June 2013 Webinar:
Improving Violence Risk Assessment Among Service Members and Veterans

Welcome and thank you for standing by. All participants will be in a listen-only mode throughout the duration of the conference. Today's conference is being recorded. If you have any objections you may disconnect at this time. Now I will turn the meeting over to Ms. Victoria Bruner. You may begin.

Today's webinar is "Improving Violence Risk Assessment Among Service Members and Veterans." Good afternoon and thank you for joining us today for our June webinar. My name is Victoria Bruner. I'm a Licenses Clinical Social Worker and a Combat Trauma Specialist at the Deployment Health Clinical Center, a Defense Centers for Excellence for Psychological Health and Traumatic Brain Injury DCoE Center. I will be your moderator for today's webinar.

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During the webinar you're welcome to submit technical or content-related questions via the question box located on the top left of the screen. The question box is monitored and the questions are forwarded to our presenter for response during the question-and-answer session held during the last half hour of the webinar. Our presenter and I will respond to as many questions as time permits.

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I will now move on to today's webinar topic, "Improving Violence Risk Assessment Among Service Members and Veterans." Research has suggested that service members returning, and veterans who served in Afghanistan and Iraq are at risk of developing psychological health disorders such as posttraumatic stress disorder, depression, and substance abuse. These disorders have been linked to increased risk of violence among war veterans. Patients with psychological health disorders are likely to use health-care services more frequently than patients without psychological health disorders. Health care providers have a unique opportunity to identify, treat, and refer patients in need of mental health services, improving the ability to detect those at highest risk of committing violence.

This webinar will conceptualize the process of violence risk assessment in veterans, review up-to-date scientific literature on post-deployment aggression, integrate new data on aggression in veterans from a national sample, and discuss how rehabilitation can help reduce aggression in veterans.

Today's presenter is Dr. Eric Elbogen. Dr. Elbogen is a forensic psychologist who conducts both clinical work and empirical research at the intersection of law and mental health services, with a particular focus on veterans. Dr. Elbogen is currently principal investigator, PI, of the National Institute of Mental Health and IMH Research Project Grant Program, examining the effects of PTSD and TBI on violence and aggressions among Afghanistan and Iraq vets. He is also the principal investigator of a DOE-funded project investigating improving financial capacity amongst veterans with psychiatric disabilities, and of a Defense Department-funded randomized clinical trial of a cognitive rehabilitation intervention to improve execution function in veterans with PTSD and TBI.

In terms of clinical work, Dr. Elbogen currently provides forensic and neuropsychological assessments at Central Regional Hospital in Butner, North Carolina, in addition to forensic, neuropsychological intelligence and personality testing through the University of North Carolina Forensics Psychiatry Program and Clinic. Join me in welcoming Dr. Elbogen.

Thank you. The research that I'll be describing today was awarded by a grant from the National Institute of Mental Health. And I'd like to acknowledge all my colleagues at the Durham VA Medical Center who helped with the data that we'll be presenting today.

Essentially I'd like you to take away a few things from this webinar. The first will be how you can, in a systematic way, look at a military service member or a military veteran who you are concerned about their risk of violence and how you can assess, engage what level of concern you should have about whether that veteran or service member might commit a violent act. We're going to review a method for your doing that. And, in fact, we're going to walk you through a system and a method for doing that with your own veteran in your offices right now. We're going to give you an up-to-date literature search on post-deployment violence and aggression and give you a sense of what does the latest research show. But the third part would be how do we integrate that into our clinical practice and how can we develop plans once we've assessed that someone's at high risk, what can we do to help reduce that risk of violence.

We're going to put up a polling question right now. If you could take some time to answer that, we'll give you about a minute to do that. Numbers are still coming in. We're going to broadcast these results and get back to our PowerPoint. What you can see, what we found here was about 35% were in the right ballpark, up to about one-third of Iraq, Afghanistan veterans -- and this is what the research studies have shown -- do report some type of aggression towards others. And while the media has increasingly highlighted instances of violent aggression in veterans, this means that the vast majority of those returning from military service are actually not violent, and I think that's an important first message to get out to you.

We're going to put a second polling question on regarding what you think might be related to this violence. So what risk factor do you think is the strongest predictor of violence among military service members and veterans? I'll give you 30 more seconds to answer this now that those are coming in. We'll broadcast the results and return to the PowerPoint. There is no answer to that question. They're all relevant to assessing violence risk in military veterans. We will describe what some of the more robust predictors of violence are. But even financial stability and instability has been shown to be strongly related to aggression in military veterans returning from combat.

In addition, posttraumatic stress disorder, listed by one-quarter of you on the phone, is not necessarily connected in a direct way to aggression. And what we have found in research is that it's not necessarily the diagnosis, per se, of PTSD, but specific PTSD symptoms, particularly those in the hyper-arousal cluster that relate to aggressiveness in veterans. Not just irritability, but also sleep problems, difficulty concentrating, hyper-vigilance, begin on guard, those have been shown to consistently relate to violence and aggressiveness in veterans. Whereas the other PTSD symptoms -- flashbacks and the avoidance symptoms -- have been less consistently related, the same with traumatic brain injury.

This relates to an important finding about aggression itself. A lot of you on the phone I saw are at the VA medical centers or you're also at military bases, and you may have a soldier or veteran come in and

complain of "I have anger problems." And what we found is that what's really important as a very first step in your clinical encounter is to identify what that person means by "anger problems." And they can mean different things that relate to different issues. So what we found was if you ask the veteran or the military service member, "Are you having problems controlling violence and violent behavior," if they say, "Yes," then what we found is that that relates to that person's and veteran's violence history, whether they were exposed to violence growing up or whether they've been firing weapons during combat, during their military service. But if they say no to that, "No, I'm not having problems controlling violence," then you would ask, "Well are you having aggressing urges or impulses?" And if they say, "Yes," that was found to relate to mental health problems, both in their family and current mental health problems, and that's what you would want to investigate. If they say, "No, no, I'm not having angry or aggressive impulses," "Are you having problems managing anger," "Yes," and if they answer "Yes" to that then that it linked typically to relationship issues.

So the bottom line, as a first step in doing your assessment, is to help the veteran or military service member define what it is that is the problem with aggression or anger or violence, and, for you as a clinician, to have a clear idea of that because anger and aggression might vary from person to person.

One of the problems is that clinicians have been shown to be at best modestly better than chance at assessing violence risk. And what's happened in the civilian literature is that there have been a number of risk assessment tools that have been developed which sought to identify both risk factors that are empirically related to violence towards others, and also combining those risk factors into actuarial instruments or decision aids to help clinicians better gauge what level of risk a patient has. Such instruments have not yet been developed for veterans and military populations.

So absent tools such as those, what we can do is we can look at, as clinicians, what are some of the risk factors that have been shown to be related to violence in military populations, and using those to look at them systematically for purposes of a risk assessment. And by doing it, by using decision aids and checklists, and we provide one, it is a 2010 article, it's a download, and it's a Veterans Risk Assessment, and there's a checklist in it. And by using a checklist like that, then you can make sure that you don't forget relevant risk factors, and, at the very least, make sure you cover the ones that are shown in the literature to relate to violence.

What we're going to have you do now is take a piece of paper and walk you through thinking about a veteran or a military service member that you may be concerned about, but have you walk through the process of doing a systematic risk assessment, and give you some steps for doing that. It's one thing for me to tell you how to do it. It's going to be more important for you to go through the experience of doing this so that you can apply this method in the future in your practice. So take a piece of paper, think about someone that you're concerned about, and let's talk about different kinds of risk factors that might be relevant.

Now you may notice that there are – all risk factors are not created the same, and there are different types. One distinction is between static and dynamic risk factors. Static risk factors don't change. Dynamic ones do. There's also individual level of risk factors about the person that you're assessing right now, but also situational factors about the environment or context that they're in.

This model was first proposed by the MacArthur Violence Risk Assessment Study and adapted for military veterans. The first category would be static, dispositional factors such as age, gender, personality traits such as psychopathic or antisocial traits that you may want to consider. So younger age, for instance, has been shown to be consistently related in military populations to violence risk. So list some of the demographic characteristic of the veteran that you think might be related.

Next are historical variables. Before, during, and after deployment, was this person violent? Half of you on the phone said that the history of violence before military service was related to current violence, and that is definitely the case. So what about witnessing violence growing up, child abuse? Are those relevant for this person that you're thinking about right now? Were they arrested beforehand? Were they arrested during their deployment? Were there infractions during their deployment? And what's happened since

they've returned home? Now those are static and they don't change, but at least by looking at those it begins to have you as a clinician begin to gauge what is this person's level of risk just based on these kinds of factors.

Dynamic factors have the advantage of changing and, therefore, can be amenable to interventions. You can target them to change and help potentially reduce someone's risk of violence, so thinking about clinical factors, PTSD, TBI, depression, alcohol or drug abuse. Other medical problems, we'll talk about whether some of those might be related to violence. And then lastly, contextual variables, thinking about your veteran right now, this is an area that is oftentimes neglected in a violence risk assessment, research shows.

Oftentimes we, as clinicians, commit what's called a "fundamental attribution error" in that we focus on solely the individual and sometimes neglect or forget about the context that someone's in. So does this person have financial problems? Are they unemployed? What's their social support network like? Are they having trouble with their social support network? What about unit cohesion? If someone's in the military, are they getting along with the other soldiers? In other words, what kind of services might they also have? Thinking about what about their context might be either protecting them or not protecting them against being violent.

And just to reiterate, today we're talking about violence towards others. And in the following studies that we're going to review in a minute, violence toward others is typically defined as physical aggression that leads to, potentially, severe harm to another person, or a threat of lethal violence, that's how it's defined. And what we have here is a review of the literature of 72 studies that have been conducted on military veterans and military service members, and if there's a checkmark those are the ones that actually, in four or more studies, showed significant relationship with aggression and violence. Younger age, past violent behavior, combat exposure has been shown to be related to violence risk; maltreatment as a child, not just the criteria for PTSD, but also having severe symptoms and new research showing that hyper-arousal symptoms, in particular, are relevant; substance abuse; depression.

TBI has not yet been shown to consistently relate to aggression in veterans. There's been a few studies, but it has not often replicated. And lastly, and very often looked at, is financial status, has been shown to be – financial troubles, not being able to meet basic needs, is related to aggression in veterans. And, in fact, in our study, and we're going to talk about that in a minute, we found that veterans who were not able to meet their basic needs, did not have enough money to cover housing, food, medical care, transportation, had a higher rate of aggression in a one-year period of time than veterans with PTSD, so financial status is important.

The study I'm going to describe is called the "National Post-Deployment Adjustment Survey." And what this involved was a random sample of every military service member who served since 9/11 and who had been separated from active duty or was in the National Guard or reserves. And we ended up with 1,388 veterans, Iraq/Afghanistan veterans, with a 56% corrected response rate.

What we found was a sample that was fairly representative of the post-9/11 military. We had veterans from all 50 states, from all branches of the military, in almost the exact proportion geographically by military branch as in the actual military statistics. Responders were not different than non-responder in demographics. And so the data that we're going to present, to our knowledge, represents some of the most – has some of the most generalized ability of any sample on aggression in Iraq/Afghanistan veterans.

We collected data to correspond with the categories. We had demographics, historical data, military data, clinical, and then we decided to add new category, which we call "functional domains." Now many of those fall into the contextual domain. And what you may have noticed when we listed the literature a few minutes ago is that there haven't been a lot of studies on protective factors. So here we just went through the list of all those risk factors, and you've added them up on the veteran or service member that you're concerned about, and what do you do about it? What do you do once you have someone at high risk? We want to see are there protective factors in someone's functional domains of physical health, psychological

health, social health, financial health, living stability. Are there functional domains that might be related to reduced risks of violence?

These are the definitions of violence that we used. We used two widely used measures. And these are the items that were used to designate severe violence in a one-year period of time, severe violence being either threat of use of lethal weapon or actually using a lethal weapon or severely injuring someone. And other physical aggression involves other types of physically aggressive acts, kicking, slapping, using (inaudible). So what did we find?

If we just did a straight random sample of the military, we would have had about 16% women veterans. But we wanted to make sure that we oversampled women veterans so we'd have enough data. So we took – it's called stratifying. We made sure we had a random sample of 1,000 women veterans and a random sample of 2,000 male veterans. And so we weighted all the analyses so that they matched the actual military. And in this random sample the average age was 33 years; 80% reported post-high school education; 70% were Caucasian, which also matches and mirrors the actual military; and about 80% reported some employment. 7% reported witnessing parental violence. 10%, one in ten in this random sample, reported having been arrested before they were ever deployed. 16% ranked officer or higher. More than a quarter has been deployed for over a year or has multiply deployment.

And the advantage of doing a random sample is that we didn't just get veterans who had just separated from the military, but, in fact, had separated eight years, with the average of 4.5, so we were able to look across the time span and control for that in the analyses. This is clinical data. 2% reported moderate to severe TBI. 15% reported mild TBI. That is consistent with other data that's been published. 20% met criteria for PTSD, also consistent. A quarter met criteria for probably major depressive disorder. And despite the media oftentimes talking about TBI and PTSD, there's actually alcohol misuse, which had the highest prevalence rate in our sample, over a quarter met criteria for alcohol misuse.

So here's the prevalence rates that we found. We found about one in ten of the veterans in a one-year period of time reported and endorsed severe violence, using that definition above. A third reported other physical aggression. So most of the aggression reported was minor, but a subset, that one in ten, reported severe violence towards others in the community. Consistent with other research from veterans from other eras, younger age, combat exposure, alcohol misuse, that arrest history, mild traumatic brain injury, and posttraumatic stress disorder, depression all had various associations with violence.

When the veteran or military service member commits a violent act, oftentimes the news media and other people have a kneejerk reaction that it has to be PTSD. The question then arises, is PTSD related to increased risk of violence? It depends how you look at it. If you look here at just the straight PTSD, yes or no, you can see that if the veteran had PTSD at time one, 20% of them reported severe violence in the next year, and that's higher than the veterans without PTSD. So that is statistically significant and deems that it is true that veterans with PTSD appear to be at higher risk.

You can also see that alcohol misuse is related to higher risk. But what's tricky is that many of the veterans with PTSD right here also had alcohol abuse. So when you parch that out you can see that it's when veterans have PTSD and alcohol misuse that there's a significant increase in violence risk; whereas the veterans with PTSD and not alcohol misuse were dramatically at lower risk of violence. And so there are conceptual models where the idea that aggression happens when something impels someone to act aggressively, let's say anger from PTSD, and someone is disinhibited from preventing that anger, which can happen from alcohol abuse, the combination of those two would lead to increased risk of violence.

And so, thinking back to the veteran that you're thinking about, in the context of this call, that we were doing the assessment on, don't only consider individual risk factors, consider the fact that combining them might lead to a synergy that dramatically elevates risk. So PTSD is related to violence in veterans, but it looks like – at least our data is suggesting -- that it's, in large part, attributable to when it is co-occurring with alcohol misuse. And it's not just when it co-occurs with alcohol misuse.

Consider, here, looking at criminal justice involvement in veterans, there's a function of whether they endorse just a single PTSD symptom of anger and irritability. You see here that veterans who have high anger and irritability had a significantly higher rate of post-deployment arrest than those without. This actually also applied to veterans with TBI. Veterans with TBI who did not report the TBI leading to increased risk of anger and irritability, who said that it didn't get them more angry and irritable, were not at substantially rates of getting arrested, or as those with increased anger and irritability were.

So PTSD needs to be looked at – are we looking at talking about PTSD plus substance abuse, is it PTSD plus certain symptoms, and then what type of violence is what you also want to consider. This is a paper that we recently published that looked at the difference in veterans, Iraq/Afghanistan veterans in stranger versus family aggression and violence. What this 3.41 means is that men were 3.41 times more likely to endorse stranger aggression in the next year than women veterans. So there is a gender difference there. But what we also found was that specific PTSD symptoms, in this case PTSD flashbacks, related to stranger aggression in the sample; whereas for the family aggression, it was PTSD anger symptoms that were related to family aggression.

And, interestingly, this is an odds ratio – the "OR" means odds ratio – when an odds ratio is less than one, in this case, it means that it was women veterans that were significantly more likely to report family aggression than male veterans. This has actually been shown in another publication. So there is now two replications of showing that women veterans are more likely to at least report family aggression than male veterans. So the PTSD also needs to be looked at, not only in terms of symptoms, but it's link to specific types of aggression. So thinking about your patient, your veteran or service member, what kind of aggression are you most concerned about?

We're now on slide 29. So we've talked about PTSD and violence. Well what can you do to help reduce risk of violence. We began to look at what are the associations of those protective factors, those functional domains of violence. What you can see is that veterans who did not have sleep problems, or did not report them, were significantly less likely to be severely violent than those who did endorse sleep problems; meeting basic needs, also less likely to be violent; psychological resilience we measured, those with higher resilience, less likely to be violent; social support, less likely to be violent. So what I'd like you to do is to begin to include these in your assessment to think about does this veteran of yours have these protective factors or not.

Back pain, a lot of veterans returning from Iraq/Afghanistan have complained of back pain. It's one of the highest frequency physical complaints that we're seeing at the VA. The ones that are having back pain are reporting higher incidence, more than twice the incidence, of violence in a one-year period of time. Homelessness, less relevant perhaps for some of the active duty military service members, but certainly relevant for veterans is risk of homelessness was related to a substantial increase in violence. Also relevant to the veterans, some of whom may be having difficulty finding employment, as it's been shown that Iraq/Afghanistan veterans do have higher rates of unemployment than civilians in their same age range, that employment is protective. So think about those variables and add those variables to your list in case you haven't had them.

What we want to do is to see which types of variables were important for you to be looking at and which ones had the most predictive value in terms of severe violence. Now what you could see, though, is that there are these clusters here, and the reason why we did that is not only for statistical reasons but to create some clinically useful categories of variables to help guide your decision-making and to get a sense of what are some of the main categories of variables and risk factors should I be looking at.

And what you could see here is that age was significantly related. If the p-value is less than .05, it's significant, so younger age was related to higher incidence of severe violence. Physical and mental injury and distress, which is cluster one here -- PTSD, depression, sleep, back pain, and mild TBI -- that cluster was highly related to severe violence. And, lastly, criminal risk behaviors, including substance abuse and criminal arrests and homelessness, that was also highly related. So it would be, at just the start, these three categories to keep in mind for kinds of topics and general areas of investigation you'd want to look into with respect to violence risk in veterans and military service members.

Other aggressions, we found that the strongest predictor was actually the support and resilience variable, the protective factor. So other aggression was negatively predicted by support in resilience, and we're talking about social support and resiliency scores. So master resilience training, psychosocial rehabilitation that's being done at the VA right now, those kinds of things might be ways to improve both social support and resilience, and by proxy potentially reduce risk of aggression.

Now how strong are these protective factors? What we have on this table in this figure is the number of protective factors that veterans endorsed, so zero through six. And those protective factors included living stability, current work, financial stability, meaning they could pay for their basic needs, psychological resilience, physical wellbeing, and social support. So a few things about this, this figure indicates that of this random sample, of Iraq/Afghanistan veterans, the vast majority of them have these protective factors. And it's really only a small subset of veterans who are at high risk who don't have these protective factors. I think that's an important message to realize that most veterans are not at risk.

The second thing is this could be, the motion of that ball going from the left to the right could be your treatment. The more protective factors that you put in place for the service member and for the veteran can help be associated with a reduced risk of aggression. In fact, that ball, that is a 92% reduction in odds of violence, severe violence between this and this. And the kinds of interventions, while mental health interventions and substance abuse interventions are clearly important, also considering rehabilitation interventions [inaudible] rehab for work; money management interventions if someone's having difficulty managing their money; the VA homelessness programs to make sure that they have living stability, those kinds of things; social support through family programs and support groups, those kinds of things can be, at least this data show, help a veteran reduce their risk of violence.

One last point about these protective factors, we want to address the fact that some of those veterans may not have seen combat, and some have seen combat, and that combat experience has been shown in research to be related to violence. But violence doesn't occur in a vacuum, and that's what this table is about. What can you see, these are all the veterans who had the highest combat exposure in our sample, but even among those veterans it's the higher combat veterans who are homeless that had higher risk of violence, compared to the veterans who had living stability and were not homeless. Veterans who had their basic needs met are at lower risk than those not. Combat veterans who have self-direction are at significantly lower risk than those that don't. Employment, self-care, spiritual faith, resilience and social support all are associated with reduced severe violence among higher combat exposed veteran.

So violence, yes, it is true that combat exposure and a veteran who's been in combat is at higher risk, but that does not preclude the necessity of looking at what are the protective factors that might be brought to bear to reduce their risk of violence. So we're going to briefly summarize, and I'm going to go through the steps to try to synthesize the research into a usable format for you to use in clinical practice. But the major takeaway messages include the following: first, it's a subset of veterans that has problems with violence. And any notion that it's something about combat exposure or PTSD that automatically brings the veteran or service member down a path of violence is unfounded and unnecessarily stigmatizing. At the same time, there is a serious problem among a subgroup of veterans, about one in ten of whom report using weapons or engaging in severe violence in a one-year period of time. There is a higher number that report minor aggression. But, again, over two-thirds have no problem with violence and aggression.

Second, the kneejerk reaction that it must be PTSD that led to this violent act does not appear to be founded. And at the same time, that doesn't mean that PTSD is irrelevant. In other words, the link is complex and it's not straightforward. So, yes, most veterans of PTSD reported no problems with aggression. And not just in our study but every study on the topic has shown that most of the veterans with PTSD don't have problems with aggression or violence. At the same time, we saw that it was associated with at least a higher risk of violence. And yet, if you take apart the groups of people with PTSD, you can see that it was in large part due to those that were also abusing alcohol. In fact, veterans with PTSD who were not misusing alcohol were over 70% less likely to report severe violence than those who did, 72% less likely. And, lastly, the relationship is complicated because specific symptoms, as

opposed to diagnosis, are relevant to consider as well. So it was the veterans with PTSD who had the irritability that were twice as likely in our analyses to get arrest, whereas the veterans with PTSD who didn't have irritability were no more likely to get arrested than anyone else.

You have to remember, too, that non-PTSD factors, factors that have nothing to do with a veteran's or a military service member's military experience are extremely relevant to consider as well. Now in that history of arrest before military service, and as many of you noted, history of violence before military service, very relevant, just like in civilian populations. Not meeting basic needs, also very relevant. And younger age, just like in the civilian population, is related to aggression in veterans. Lastly, consideration of protective factors; what can you do once you've identified that a veteran is at high risk? Well, PTSD treatment, substance abuse treatment, or dual disorders treatment is ideal. And, in addition to those, consideration of psychosocial rehabilitation an resiliency training that helps target basic functioning, living situation, financial status, work, and also wellbeing, someone's social support network, their psychological wellbeing and resilience, or physical problems, sleep, and pain.

This is a five-step process for taking all the research that we just discussed and to applying it to your clinical casework. The first thing would be to really help the veteran or service member, and you as a clinician, help identify what specifically is the problem with aggression that you're talking about, or anger. Is it just difficulty with one relationship, or is it that someone's getting into a barroom brawl, or is it that they are having thoughts of wanting to kill someone, or is it that they target, or is it family members in general? What kind of violence are you talking about is really the first step in doing this assessment.

The second step would be to consider use of risk assessment tools. There are many used in civilian populations. The classification of violence risk, called COVR; the ECR20, the third version just came out, there are others; those can be used with the caveat that there's still ongoing research that we're conducting, and others, to see if they're valid in military populations, but they certainly can be used as long as a caveat like that is made.

In the meantime, even in the absence of having those tools, why not have your clinical decision-making mirror the process of those tools. So be systematic like those tools are. And make sure that you review evidence-based or empirically supported variables, and, again, there's a checklist for that that's available here. Think about considering those in a systematic way, just like we did towards the beginning of this call when you're assessing their risk, because that way you won't forget key risk factors. You won't necessarily – you won't forget, oh, is this person, are they younger aged, are they meeting their basic needs, are they having trouble paying for their light bills, because that itself and risk of homelessness might itself increase their risk of violence too. Definitely consider PTSD. PTSD is related to elevated risk, but don't just stop there.

Go beyond diagnosis and think about what are the specific symptoms that might be related to this veteran's or service member's risk of aggression and violence. Is there a co-occurring alcohol misuse? What are other risk factors to consider just like in civilians? Were they violent or arrested even before they were in the military or did they grow up witnessing violence? Those are other variables to consider. And there's an article that's available, it says "CJ PTSD Veterans 2012," which shows how those types of variables like younger age and witnessing family violence and history of pre-military arrest actually were more significantly related to post-deployment arrest than PTSD.

Lastly, consider protective factors. There's another article called "Protective Factors Veterans 2012" that summarizes this research and has a checklist of some protective factors that you can look at to help bolster if you're trying to help come up with a safety plan to reduce risk of violence or the veterans or a service member.

So these are the five steps that seem indicated from the research right now that's still in its infancy. There's more research being done all the time by many different groups, and at the current time there are tools being developed and validated and interventions being developed. We ourselves have developed an intervention called "CALM," Client-centered Anger and Life Management, although my nine-year-old daughter has renamed it "cool and laid back mood." She thinks that that's a better acronym for it, and the

vets really like that better. But it's based on these five steps, so there are efforts underway. But at this point I think I'm going to open it up to questions that you might have. And I'm going to leave it up to organizers to do that.

Okay. Thank you for your presentation, Dr. Elbogen. If you have questions for Dr. Elbogen, please submit them via the question box. It's now time to answer questions from the audience. We're monitoring the question box, and we'll forward questions to our presenters for response. If you have not already done so, you may submit questions via the question box located on the screen. We will respond to as many questions as time permits. I now am going to read one of the questions, and then we'll have that followed by Dr. Elbogen's response and for the discussion.

Here's the first question, "Any data, and your thoughts, about the contribution of violent TV, movies when growing up?" This question seems to be relating to the child exposure to violence, whether it's in the media specifically is what I read this at.

Well, certainly in terms of military veterans and service members, that has not been looked at, to my knowledge. And I think in terms of the general literature on that, it's not my area of expertise, but my read on it is that it's definitely not something that's been consistently shown. Sometimes there are some studies that show some physiological response to it. And certainly there's speculation in the media about it after there's some tragic event. But I'm not aware that it's something that has been consistently shown in the science to be related to future violence.

I think some of the data on this topic relates to impulse control, per se, and whether or not the child is watching the violence without an adult nearby to interpret it, because many people will point it, and it's true, that many nursery rhymes are violent, but as long as there's a mediator there, so to speak, the risk is much less. The next question is, "For the National Post-Deployment Survey, what was the total percentage of folks who reported symptoms meeting criteria for any significant mental illness?"

That's a great question. We did a screen for bipolar disorder. We asked questions on psychotic symptoms. But what I can tell you is that if you look at -- and this is published earlier this year -- if you just look at three mental health problems, alcohol misuse, major depression, and PTSD, it was 42% of the random sample that met criteria for those three mental health disorders. And that was published earlier this year in the "Journal of Psychiatric Services."

Okay, thank you. "What is the median you refer to on the combat exposure scale?"

Okay. Well we didn't use the combat exposure scale; instead, we had used a more up-to-date measure called a deployment risk and resilience inventory, which is available through the National Center for PTSD. And there is one scale that goes into a lot of details about different kinds of combat exposures. And in our studies we were using the median to look at high combat exposure versus low. So that slide had the veterans who had had high combat exposure, above the median, on that deployment risk and resilience scale.

All right. This is a question about a specific slide, and that is slide 31, in which "rank officer" is designated as a group, "What does mean? Higher rank of officer or above reduces risk?"

That's an interesting and good question. And if you look at just the by variant relationship, it looks on the surface like higher rank is related to lower risk. But in large part, if you look beyond this table, that's attributable to younger age, and age being what's responsible for that relationship. So we don't find that rank is related to aggression once you control for age, which was not in that analysis with the factor.

This is a question that I have for you, Dr. Elbogen. In the general population, is it true that the higher level of education that the individual has would result in lower violence risk?

There are some studies that have shown that a lower education is related to violence risk. It's tough to compare those to veterans and military service members for the reason that 15% to 20% of civilians drop

out of high school; whereas 0% of veterans and military members have dropped out, in fact they have, by definition, have a GED or a high school diploma. So we did not find that education was, at least in this – in military service members, related to aggression. But in the general population there are some studies that have shown that.

We also had a question about the relationship between violent video games and the risk factor for violence.

Yes, so there was a question before about that. Is there another question about that?

Well, it's very popular amongst our troops to play video games. And many times coming back from missions and immediately going to playing of a video game, or for leisure activity.

Yeah, I'm aware of no studies that have linked that activity to violence or aggression in veterans.

Well, you know, I just was told that apparently there is a situation in which folks who are waiting in a waiting room to see a clinician are given games, violent video games to play, as they're anticipating their appointment.

Well there are probably non-violent alternatives available. In fact, we are running a Department of Defense study where we're giving some memory apps or cognitive training apps that might be potentially more calming than those. But I'm not aware that in the scientific literature there's been a link. Any others?

It would seem counterintuitive to provide violent video games for folks waiting for a clinical appointment to deal with anger.

It certainly does.

And I would much rather see them doing some monitoring of their autonomic nervous system and perhaps some soothing visual aids to help them become more internal and ready for their therapy intervention.

Absolutely. And there's PTSD Coach, which is free through the National Center. There are a number of -- you know, the Department of Defense has Tactical Breather and other apps that would be more therapeutic. Any other questions?

Yes, I'd like to switch to a question that we've seen a couple of times now, and that relates to "What is the name of the assessment tool you mentioned for assessing violence risk among service members?"

There's no name for it, but it is available to you right now to download as there are downloads, and it's a checklist then in the 2010 article. And the checklist, actually what it does is it summarizes all the factors that were shown to be empirically related to aggression in veterans, so it gives you a checklist and does not substitute for clinical decision-making. But if you're trying to figure out is this person in front of me at risk, to the very least you'd want to consider the risk factors that have been shown to scientifically relate to violence, and that's what that checklist does, but there's no name for it.

Another question is, "Where are we able to get information about the CALM element?"

Oh, the CALM intervention? We are currently piloting that here in the Durham VA. We're applying for some research funding to see if it is going to help reduce risk of aggression. But at least right now it has been formed to – if someone wants to contact me about it, more than happy, just e-mail me. I don't know whether my e-mail – my e-mail is on all the attachments. So please feel free to e-mail me and I can talk with you more offline.

This is a question regarding the ancient techniques that Martial Arts has used to help prevent future occurrence of violence.

Okay, what is the question?

It's relating to the benefit of martial arts that are utilized to reduce risk of violence.

Well I am not aware of any research doing that, but I know that there are a lot of mindfulness and yoga and alternative medicine kinds of approaches that are being considered for veterans, not just for aggression but for other post-deployment problems.

It would seem that many of those, both the Martial Arts and mixed Martial Arts, yoga, and all the interventions that relate to the body and focus would do a great deal to calm the autonomic nervous system reactivity, especially given your data looking at the predominance of hyper-arousal symptoms. So I think that is a very population practice now that's being used and has become mainstream in the military Department of Defense treatment programs.

Well I'm glad you brought up that point. That does bring up an issue about anger and PTSD treatment. And I think what's interesting is that research has shown that veterans with PTSD who have anger problems are 50% or up to 50% more likely to drop out of evidence-based treatments like cognitive processing therapy or exposure therapy. So what's interesting about the way that that question was phrased is it makes one wonder whether one of the reasons why those veterans who have anger problems are dropping out of those treatments is maybe because they're dealing, not specifically, and some of the evidence-based practices deal with criteria B, which is the re-experiencing and less directly on the hyper-arousal. So there may be a need to talk about, you know, what are some of the symptoms that a veteran with anger problems would want PTSD treatment for, and that might be something to better tailor PTSD treatments to the main complaints and problems of veterans who have PTSD. And certainly some of these alternatives that are being considered are certainly important in that regard.

We have time for a few more questions. "Do you have data on the commission of civilian-focused violence while deployed; for example, atrocities and the violence risk upon redeployment or separation?"

What was the question exactly?

"Do you have data on the commission of civilian-focused violence while deployed; for example, atrocities and violence risk upon redeployment or separation?"

We don't have data on that. We have looked at whether or not multiple deployments relate when they return back from service and separate, whether or not the multiple deployments are related to increased risk of violence. And we found that it's not the multiple deployments per se, but it's the combat exposure and increased risk of PTSD that seemed to be more strongly related.

The next question, "How can we increase ongoing community sensitivity about issues veterans are challenged with, such as aggression, given that people tend 'not to think a problem is present because they don't see it' type of perception, thus very critical needs of both veterans and their family members are not being seen as needing anything from their peers or their community?"

So, yeah, the issue about aggression and public perception is important. And one of the problems is that employers or schools might be hesitant or reluctant to – an employer might be reluctant to hire veterans because they have a preconception that the veteran is at risk of violence. And paradoxically our data shows that it's actually when a veteran is deployed that they're at lower risk of violence, or when they're in school and actively working towards goals they're at lower risk of violence. And I think that's an important message to tell employers or people; that I think that it's actually, those are the protective factors that would reduce risk. I think the second thing about it is to encourage people to think beyond PTSD when it comes to aggression and violence and to go beyond the kneejerk reaction. I think it's certainly relevant, but there are other things going on, and I think that's an important point to make is that there are non-PTSD or non-military-related reasons why a veteran or service member might act violently.

One last question, “Would the same risk factors and protective factors apply to suicide prevention and risk mitigation?”

Great question. I’ve seen a lot of people in the public chat listing that. And there are certainly quite a bit of overlap between the risk factors that we found related to violence towards others that relate to violence towards self. And I’m not aware of research that’s looked at protective factors in, first, to reduce chances of suicidal ideation or self-harm behavior, but given that the risk factors overlap so much I would not be surprised if a similar rehabilitation approach was related. And we do have data, we published it a year ago, showing that veterans who were not able to meet their basic needs financially were at higher risk of both suicidal ideation and having made suicide attempts. So, at the very least, we do have some research to suggest that those protective factors would be just as applicable to violence itself.

We have time for one more question. “What treatment modality; that is, PE, CPT, EMDR, problem-solving therapy, interventions, would work best to reduce anger and rage?”

You really saved the tough one right to the end, huh? That is the big question. And, you know, there has been research showing that some of those treatments do lead to reduced anger in veterans with PTSD, but there’s really not been a lot of research on it. And so the answer is we don’t really know what modality is best for this. What we do know is, regardless of the modality, symptoms are certainly a part of the picture, but functioning is also a part of the picture when it comes to reducing aggression. So any of those treatments might reduce the PTSD symptoms, but if someone’s still having trouble getting along at work or keeping a job or paying their bills and not going over on their credit card debt, those are other things that need to also be considered in terms of an overall approach to reducing risk of violence.

I want to support what you just stated; for example, EMDR is actually contraindicated if there are problems with internal locus of control. Also, other interventions that are very valuable such as CBT, PE, problem-solving therapy, et cetera, really need to have the patient have a basis of internal control, I think, before you can move to that work. I’m also reminded again, as a clinician, of the critical importance of the therapeutic relationship and how having a strong relationship with a caring professional can mitigate and can encourage the individual, the service member, with these types of issues that there is hope. The last thing is I’m reminded of Maslow’s Hierarchy and how many of the things that you’ve stated are wonderful wisdom that we can look back to when we consider Maslow’s Hierarchy of Needs.

I want to thank you again to our presenter, Dr. Eric Elbogen. Today’s presentation will be archived in the monthly webinar section of the DCoE website. To access the presentation and resources lists this webinar, visit the DCoE website, DCoE.health.mil/webinars. An edited transcript of the closed captioning will be posted to that link. An audio recording of this webinar also will be available as a downloadable podcast.

To help us improve future webinars we encourage you to complete a feedback survey. This link is available on the DCoE website. Again, thank you for attending today’s webinar. The next DCoE webinar topic is DSM-V: Revisions and Implications, and it’s scheduled for July 25th, 2013, from 1:00 to 2:30 p.m. Eastern Time. Thank you again for attending and have a great day.

Thank you.